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Discourse metaphors

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Abstract

The article introduces the notion of *discourse metaphor*, relatively stable metaphorical mappings that function as a key framing device within a particular discourse over a certain period of time. Discourse metaphors are illustrated by case studies from three lines of research: on the cultural imprint of metaphors, on the negotiation of metaphors and on cross-linguistic occurrence. The source concepts of discourse metaphors refer to phenomenologically salient real or fictitious objects that are part of interactional space (i.e., can be pointed at, like MACHINES or HOUSES) and/or occupy an important place in cultural imagination. Discourse metaphors change both over time and across the discourses where they are used. The implications of focussing on different types of source domains for our thinking about the embodiment and sociocultural situatedness of metaphor is discussed, with particular reference to recent developments in Conceptual Metaphor Theory. Research on discourse suggests that situatedness is a crucial factor in the functioning and dynamics of metaphor.

Keywords: conceptual metaphor theory, discourse analysis, discourse metaphors, schematicity, sociocultural situatedness.

1. Introduction

This article introduces the notion of *discourse metaphor* to the cognitive and social study of metaphor. By discourse metaphor we mean

> a relatively stable metaphorical projection that functions as a key framing device within a particular discourse over a certain period of time.

Examples of discourse metaphors are FRANKENFOOD, EUROPE IS A HOUSE, NATURE IS A BOOK, or THE STATE IS A MACHINE.

In Cognitive Linguistics, metaphor has attracted immense interest as a pervasive process of meaning creation. Highly schematic metaphorical

mappings, motivated by the experience of correlations between sensorimotor functioning and subjective judgement, have been hypothesised to be at the core of much of human cognition. Examples of these so-called primary conceptual metaphors are KNOWING IS SEEING, STATES ARE LOCATIONS, AFFECTION IS WARMTH, or IMPORTANT IS BIG (Grady 1997; Lakoff and Johnson 1999).

In the following we want to explore the differences between discourse metaphors and (primary) conceptual metaphors, and discuss their implications for our understanding of embodiment and sociocultural situatedness within a cognitive linguistic framework. We believe that such a discussion is useful, because ever more research on metaphor is carried out on the basis of naturally occurring text and talk. Much of what seems central to the study of metaphor in discourse (context-boundedness, strategical fuzziness, ideological bias) has, until recently, received little attention in the cognitive linguistic literature, but things are beginning to change.[1]

The structure of this article is as follows. First, we provide a brief overview of various on-going case studies of metaphor in discourse (2). This will illustrate some of the characteristics of discourse metaphors, and allow us to explicate the differences in comparison to proposals about more schematic mappings made in the literature. We discuss the cross-linguistic occurrence of particular mappings, the ontological status of mappings on different levels (phenomenological salience of discourse metaphors vs. hypothetical status of primary metaphors), the evolution/life-span of particular metaphorical mappings, and the cultural imprint of metaphors (3). We then discuss the implications of different approaches to metaphor for our understanding of the embodiment of figurative language, and argue that discourse metaphors provide evidence for the sociocultural situatedness of metaphorical reasoning (4). Finally, we position our argument within the wider discussion on the dual grounding (Sinha 1999) of human cognition in the cognitive sciences (5).

1. Cf. Frank s contribution (*this volume*) which explores various aspects of the applicability of the discourse metaphor framework outlined here. Indeed, that study might be viewed as a first step in filling this gap. See also Zinken (in press) and Musolff and Zinken (in press)

2. Case studies

This section is intended to highlight particular insights from discourse studies on metaphor that are important to the objective of our article. Specifically, we wish to make three points that characterize discourse metaphors. These regard the cultural component in discourse metaphors, their basis in interactional as well as individual cognitive processes (cf. Bernárdez *this volume*), and their occurrence across languages. The summary of some case studies in this section will allow us to point out the differences between discourse metaphors and primary metaphors. The results described here stem from Nerlich s research on cultural scripts in discourse on animal and human diseases, such as FMD and SARS (see Larson, Nerlich and Wallis 2005; Wallis and Nerlich 2005; Larson *this volume*), Hellsten s research on systemic and contested properties of metaphors in discourse (Hellsten 2002, 2003; Nerlich and Hellsten 2004) and Baranov and Zinken s research on the cross-linguistic comparison of metaphors as discourse practices (Baranov and Zinken 2003; Baranov and Zinken 2004; Zinken 2004; cf. also Zybatow 1998).

2.1. Discourse metaphors employ cultural knowledge

Larson, Nerlich and Wallis (2005) have analysed media discourses surrounding policies of biosecurity, implemented when nations or the world as a whole are faced with biorisks, such as invasive species or invasive diseases. The examples studied were foot and mouth disease (FMD) (an old animal disease that broke out in the UK in 2001) and SARS (a new form of pneumonia or flu which broke out in China in 2003 and spread to the West). Metaphor schemas preserving a relatively high level of specificity and relatively rich cultural knowledge in the source domain such as HANDLING A DISEASES IS A WAR or A VIRUS IS A KILLER can be used in these circumstances as a way of expressing a (preliminary) understanding as well as evoking an emotive response. They can also be used to frame policies intended to halt the spread of the disease in question. Using the wrong policy framed by the wrong metaphor can have devastating social, economic, psychological and animal welfare consequences. In such contexts the import of metaphor extends beyond individual cognition, into the realm of society and culture.

Scientists and policy makers might use certain culturally available and historically entrenched metaphors to frame scientific discoveries or policies, without initially reflecting on the wider implications their choices might have for instance the killing of around eight million animals in the war against FMD. In this case a relatively harmless animal disease virus that poses no risks to human health was framed, for mainly political and economic reasons, as a deadly killer and invisible enemy that had to be stamped out at all costs. This shows that [m]etaphors, which entice us to understand and experience one kind of thing in terms of another [...] play a central role in the construction of social and political reality (Annas 1995: 744, quoting Lakoff and Johnson 1980: 156). Using well-entrenched metaphors and policies of war has, however, various drawbacks in the framing of disease control programs, the most serious of which is perhaps that [m]ilitary thinking concentrates on the physical, sees control as central, and encourages the expenditure of massive resources to achieve dominance (Annas 1995: 746).

The use of metaphors is not innocuous it can have social costs and social benefits. It is therefore not only necessary to investigate the content of a metaphor and ask

> What does a particular metaphor express, and how? There is [ ] another question that needs to be asked: How felicitous is a particular metaphor in a particular context (e.g., solving a problem, obtaining consensus, elucidating difficult subject matter, and so on)? (Mey 2001: 62)

This is a question asked by a discursive or pragmatic approach to metaphor.

Some of the most important schemas that can be used to obtain consensus in certain socio-political and discursive situations are those of CONTAINMENT, FORCE and BALANCE. In the discourses on FMD and SARS we have found metaphors based on such (image) schemas. However, unlike Lakoff and Johnson, who seem to embrace what some call an unsituated view of embodiment (Bono 2001: 219; cf. also Zlatev 1997), we think metaphors based on such schemas need to be explored in the cultural context in which they are used, specifically, in terms of their sociocultural situatedness.

As Paul Chilton has pointed out in an article on The meaning of security : Diseases are typically imagined as *invading* the body *from outside*, a notion which rests both on the CONTAINER schema and the warfare script. (Chilton 1996: 197). Scripts and schemas interact to give metaphors discursive potency and to make certain metaphors plausible in certain situa-

tions. However, conceiving diseases as invaders and the control of disease as war might not have always been the case in the past, and might not have to be how we conceive of disease in the future (see Chilton 1996: 201). We found for example that the war metaphor was much less used in the UK media reporting on SARS than in the UK media reporting on FMD because the metaphor was a more plausible framing device in the latter situation than in the former (Wallis and Nerlich 2005). Discourse metaphors have a social and cultural history and they influence social and cultural futures.

> Take, for example, the metaphors of balance and warfare that have characterized different epochs of medical thought in the West. The Hippocratic and Galenic ideals of health as a balance of humours, or active bodily fluids authorized a particular set of relationships between individual bodies, and their external environment, and led to the cultivation of certain regimes of bodily care and control. By contrast, the embattled body of modern germ theory adopts a quite different set of relations to its hostile external environmental and enforces on itself and on society more generally a stringent medicalized, socio-political regime. (Bono 2001: 225)

The study of conceptual metaphors has proliferated since the 1980s. However, cognitive linguists have rarely examined the repeated or continued use of such metaphors in times of emotional turmoil or in times of scientific or political uncertainty. This is a gap that needs to be filled if we want to understand how general and local aspects of culture and cognition interact in the ways people think and act in the real world (see Zinken, Hellsten and Nerlich 2003). Here, metaphor is frequently used not only to understand inherently unstructured abstract concepts, but also as a heuristic device for exploring something global which is beyond normal comprehension and/or might directly threaten our health, well-being or survival.

More research is needed to find out whether in times of scientific or political uncertainty, or during times of social upheaval, discourse metaphors, such as the WAR AGAINST DISEASES metaphor, become attractors for cultural commonplaces, cultural myths and salient events of the past. This cultural motivation of metaphor could be described as a kind of intertextuality (Zinken, Hellsten and Nerlich 2003). On the one hand, these metaphorical and cognitive constants seem to be discursively embedded in a relatively stable reservoir of cultural myths and social representations available in social memory e.g., memories of past wars and past epidemics, or of weeds, plagues and displacements (see Cresswell 1997). On the other hand, they can draw on knowledge of current social and political events, such as, in the case of the fight against SARS, the concurrent war

against terror , the war in Iraq and threats of bioterrorism. SARS can therefore be conceptualised either as an ancient plague with all the old imagery that surrounds this concept or as a bioterrorism of nature (Riddell 2003), evoking much newer concepts and fears. Discourse metaphors seem to be stable over long periods of time but they evolve and adapt to changing socio-political circumstances (see Nerlich and Hellsten 2004; Musolff 2004, *this volume*; Nerlich 2005; Frank *this volume*). They might also tie up with and reinforce long traditions of political thought, ideologies or entrenched cultural values (see White and Herrera 2003: 277). Sustained use of certain discourse metaphors contributes to giving a discourse or discursive practice its overall coherence and communicative edge (ibid.).

2.2. Discourse metaphors evolve in historical time

Hellsten (2003, 2005) has been tracing the metaphors of FRANKENFOODS and THE GENOME IS THE BOOK OF LIFE over time and across different discourses. The FRANKENFOOD metaphor was used in agricultural biotechnology discourse, while the BOOK OF LIFE metaphor was and is pervasive in the medical biotechnology discourse (Kay 2000). The main point we wish to make in this section is that the meanings of *discourse* metaphors co-evolve with the cultures in which they are used. Conceptual metaphors are considered universal, independent of time while discourse metaphors change with the ongoing discourses (see also Musolff *this volume*), and are used for specific purposes (Hellsten 2000).

Discourse metaphors reflect the cultural and social preoccupations of the time. New topics and events are often discussed in terms of cultural and mythical commonplaces; the target domain of the metaphor may be new while the source domain is much older. The metaphor of GM-FOODS ARE FRANKENFOODS, for instance, was coined only in 1992, while the source domain, the myth of FRANKENSTEIN'S MONSTER has triggered people s imagination ever since Mary Shelley s novel was published in 1818, and has been used in various text traditions. The cultural image of scientists creating potentially dangerous, new Frankenstein monsters in their laboratories is readily applicable to certain aspects of science and technology. This image has been used in public debates on genetically modified foods, for example. The metaphor of FRANKENFOODS gained its momentum in Europe after 1996 as a reaction against the US import of genetically manipulated crops. In other words, it became a one-issue metaphor within the

debate on GM-foods. It was first used by environmental and consumer related NGOs, in particular, *Friends of the Earth,* and spread to the mass media in between 1998 and 1999. In the UK, the metaphor was also used in the political decision making on GM-foods. The metaphor faded away from the public agenda when the debate on GM-foods calmed down after 2000, but is still with us today. The UK tabloid newspaper *The Daily Mail* still runs, for example, a so-called Frankenstein Food Watch campaign.

Successful discourse metaphors can resonate across a wide variety of discourses, topics, and over time. The source domain of Frankenstein s monster can be mapped onto a wide variety of target domains, but it seems to carry a relatively fixed set of associations and connotations with it, often referring to the unpredictable negative outcomes of scientific activity. Hence, it is readily made use of in new cultural situations, such as the introduction of genetically manipulated crops into the European markets. Because of this relatively stable set of associations, the metaphor of *Frankenfoods* and the related metaphors of *Frankenfish*, *Frankencorn* and *Frankenmilk* can be effectively used to call for action against the GM foods.

In a similar way, the metaphor of THE GENOME IS THE BOOK OF LIFE, widely used in the debate on genomics, is both novel and old. The source domain of THE BOOK OF LIFE has been in use ever since Antiquity, and has a long history within the Judeo-Christian tradition where it refers to natural, eternal and universal texts (Kay 2000: 31).[2] In the Book of Revelation, the names of those to be saved from the Apocalypse are written in the book of life . Parallel to the BOOK OF LIFE runs the BOOK OF NATURE, common in the history of the natural sciences, where science was perceived as an effort to *read and write the book of nature*. For Galileo, the book of nature was written in the language of mathematics (Cohen 1994).

According to Kay (2000), the metaphor of the BOOK OF LIFE gained its current scientific legitimacy in the debates on genetics when it was connected to the discourse of information: genes carry the information, *the instructions* for the formation of organisms. The connection between cellular systems and the alphabet first became popular in the 1960s when molecular biologists started using the metaphor for understanding the

2. The metaphor would deserve a more detailed study, which might investigate the emergence of a discourse metaphor from errors or variations in translation. The phrase book of life in Revelation has a contested history as it migrated from various Latin versions of the Bible to its English instantiation.

working of the DNA (van Dijck 1998: 123), as composed of the four nucleotides represented by their initial letters, adenine (A), thymine (T), cytosine (C) and guanine (G). A, T, C and G became *the alphabet of life*. During the Human Genome Project, between 1990 and 2003, the metaphor was effectively used to promote the research project to increase public awareness of the research project, and ever new formulations of it are now being used to promote post-genomic research (Hellsten 2005). The metaphor has co-evolved with the genome project, from discussing DNA in terms of the alphabet to comparing the different genomic books of humans and mice, for example.

Resonance over time, across topics and across different domains of use in society makes discourse metaphors apt tools for communication. The metaphor of the book of life, for instance, has moved diachronically from the Bible to modern sciences and to the genome, in particular from gene sequencing to genome annotating, and from lexical to semantic structures. Across topics, the metaphor has been used in the debates on genetics and genomics as well as in the debates on biodiversity where nature is sometimes considered as the library of life (Väliverronen and Hellsten 2002). The metaphor has also provided resonance across the different societal domains that participate in the debates, such as the sciences, the social sciences and the mass media (see also Hellsten 2000). The metaphors of FRANKENFOOD and THE BOOK OF LIFE carry familiar cultural images (Frankenstein myth and apocalypse myth) that gain resonance when reformulated to fit into new contexts (GM foods and genetics/genomics).

Discourse metaphors evolve as part of communication and text traditions, in the social use of the metaphors. Some of these metaphors become narrative metaphors[3] (NATURE IS AN OBJECT; NATURE IS A BOOK) and gain a very prominent position within a given culture while other, one-issue metaphors have a shorter life-span (FRANKENFOOD).

Thus far we have focussed on diachronic aspects of discourse metaphors, but discourse metaphors can be traced synchronically as well by comparing the width of discourses that use a certain metaphor as a key-grasp. The novel metaphor STEM CELLS ARE LIFE S MAGIC CAULDRON is

3. The concept narrative metaphor is introduced in Hellsten (2002) and refers to very strongly entrenched metaphorical cultural models. Where discourse metaphors may vary from one-issue metaphors, i.e., metaphors such as Frankenfood, that are purposefully coined to advance certain interests at the expense of others, to more general metaphors such as nature is a book, narrative metaphors often provide wider cultural views on the issue.

probably part of a specialist discourse, and therefore is much more restricted than CLONES ARE COPIES, which, in turn, is more restricted than NATURE IS A BOOK. But this novel metaphor links the new phenomenon of stem cells to old cultural knowledge about magic and miracle.

Discourse metaphors are communicative and cultural tools, and as such potentially more variable than the highly schematic mappings proposed within Conceptual Metaphor Theory (CMT).

2.3. Discourse metaphors occur across languages

Baranov and Zinken (2003, 2004) have conducted cross-linguistic research on the metaphors used in Russian and German newspapers to talk about political transformations in the two countries in the late 1980s and early 1990s. In this project the focus was on source domains, the goal was to compare the scope of target domains understood via a particular source domain in these languages, as well as investigating the similarities and differences within source domains between the languages.

Russian and German are genealogically and typologically related Indo-European languages, and the cultural heritage shared within the area is considerable. It is therefore not surprising that there is a vast number of metaphors that are common in both Russian and German public discourse. However, there is also considerable diversity.

Firstly, there is diversity in the use of metaphors for a specific target domain. E.g., in the Russian media, the discourse metaphor for the target domain *transformation* was TRANSFORMATION IS REBUILDING (*perestrojka*), the source domain being BUILDING. In the German discourse, the discourse metaphor for the same target domain was TRANSFORMATION IS A TURN (*Wende*), using the source domain MOVEMENT. Obviously, BUILDING-metaphors are also documented in the German discourse, and MOVEMENT-metaphors are documented in the Russian discourse. However, both quantitative and qualitative data suggest that understanding socio-political change as a MOVEMENT was a discourse practice in the German discourse of the time whereas it wasn t one in the Russian discourse, and conversely understanding socio-economic change in terms of (RE-) BUILDING was a discourse practice in the Russian, but not in the German media (Baranov and Zinken 2003).

Secondly, there are differences in the use of particular source domains. As an example, let us look at the source domain FLORA. Table 1 shows part of the semantic frame of the metaphor model FLORA:[4]

Table 1. Compiled sections of the semantic trees for the metaphor model FLORA.

Descriptor/Russian database	Descriptor/German database	English gloss
FLORA (LEVEL 0)		**FLORA**
	1.1. Flora (level 0)	
ЧАСТЬ РАСТЕНИЯ-ДЕРЕВА (LEVEL 1)	*TEIL EINER PFLANZE/EINES BAUMS* (LEVEL 1)	PART OF A PLANT/TREE
ветка-ветвь (level 2)	Zweig (level 2)	branch
разветвление (level 3)	Verästelung (level 3)	ramification
корень (level 2)	Wurzel (level 2)	root

As can be seen in table 1, both the Russian and the German discourse use the concepts of a *branch* and of *roots* on level 2 in the subdomain hierarchy metaphorically in public discourse. Furthermore, both languages have the same metaphors, mapping *branches* onto *economic domains*, so that *different branches of an economy* denote different economic domains, and mapping *roots* as in *her political roots* onto *traditions* or the *beginning of a political process*. These are typical discourse metaphors in the sense of our definition in (1). However, *ramification*, a subdomain of *branch*, is used in the German corpus only, where it is a common metaphor in talking about the target domain of questionably *close institutional links*. (e.g., between companies). Not only is there no metaphor CLOSE INSTITUTIONAL LINKS ARE RAMIFICATIONS in the Russian corpus, there is no mapping whatsoever of X ARE RAMIFICATIONS with X being any target domain. In other words, the gaps in discourse mappings vary cross-linguistically. Whereas *ramifications* as part of the domain *branch* is mapped onto the domain of *economy* in German discourse, such a mapping does not occur in Russian dis-

4. Inverted letters mean that no metaphor in the corpus was coded in the database using the respective descriptor. Small Caps indicate level 1 in the subdomain hierarchy, indentations indicate level 3.

course. This is a problematic case for attempts to account for the details of complex metaphors by reducing them onto hypothesized universal primary metaphors.

Generally speaking, cross-linguistic occurrence on levels 1 and 3 in the subdomain hierarchy turned out to be more restricted than on level 2. This allows for the hypothesis that basic level concepts (Rosch et al. 1976) are cross-linguistically more salient as metaphorical source concepts than concepts on the superordinate and subordinate domains. One implication of this is that lexicalisation patterns have to be given more prominence in accounting for the motivation of metaphor (cf. Evans 2004 for a related plea). E.g., the fact that there is a *ramification*-metaphor in the German corpus (the German word is *Verästelung*) but not in the Russian one is probably best explained by the productivity of the German prefix *Ver-* in metaphorical meaning extension.[5]

It is important to point out that we did not a priori claim a link between the hierarchy of (sub-) domain levels and the notion of discourse metaphors. The nesting of levels within a domain is a cognitive phenomenon that is part of conceptualisation (Croft 2003; Langacker 1987). Discourse metaphors were initially defined in social terms: they are mappings that regularly appear in discourse on the actual linguistic surface (social stability), which indicates a certain phenomenological salience of discourse metaphors to speakers. Although these factors (social stability and middle level in subdomain hierarchy) are logically independent, there does in fact seem to be a relation between them, so that discourse metaphors usually make use of source concepts from the middle level of categorisation.

3. Embodiment and metaphor theory: discourse metaphors and primary metaphors

The latest elaborations of Conceptual Metaphor Theory (Grady 1997; Lakoff and Johnson 1999; Grady and Johnson 2003) emphasize that metaphor is a strong source of evidence for the embodiment of cognition. In this context, both the terms *metaphor* and *embodiment* are understood in a particular way. In this and the next sections, we will briefly spell out our reading of this understanding of metaphor and embodiment. As we do so, it will become clear that the type of metaphor we have found to be most sali-

5. We would like to thank René Dirven for drawing our attention to this.

ent in discourse in section 1 (discourse metaphors) differs in various ways from primary metaphors. We argue that the particular characteristics of discourse metaphors add to our understanding of the phenomenological aspect of embodiment and our understanding of the relation between embodiment and sociocultural situatedness.

We mentioned three case studies in order to make three points about discourse metaphors: they use knowledge associated with basic level concepts; they evolve in social interaction; and they are firmly linked to cultural scripts and stereotypes. These three findings taken together seem sufficient to make the claim that discourse metaphors are a distinct phenomenon that needs to be accounted for in a cognitive theory of metaphor.[6]

3.1. Phenomenological salience

As mentioned at the beginning of the article, examples of primary metaphors are KNOWING IS SEEING, STATES ARE LOCATIONS, AFFECTION IS WARMTH, or IMPORTANT IS BIG. These are regarded as primary in two senses. They are primary in the sense that they are the first conceptual metaphorical mappings acquired in childhood as a result of recurrent correlations between sensori-motor experience and subjective judgement of this experience. But they are also regarded as primary in the sense that all or nearly all the metaphors that we use or hear in communication are thought to be derived from a relatively small set of these primary metaphors. As the term primary metaphor indicates, in this line of research it is this type of metaphor that is regarded as most important, or basic in understanding the cognitive functions of metaphor:[7] We need to know how primary metaphors work, if we want to understand why we have the secondary or tertiary metaphors that we do.

An example of this approach is Grady s analysis of the proposed metaphorical mapping THEORIES ARE BUILDINGS (Grady and Johnson 2003).

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6. By a cognitive theory of metaphor we mean any theory that tries to account for the role of metaphor in conceptualisation, as opposed to the term Conceptual Metaphor Theory relating to the school of Lakoff and colleagues.
7. Consequently, Özçalişkan (2003) uses the term basic level to denote the level of primary metaphors and primary scenes in the sense of Grady and Johnson (2003). Here, the term is used referring to a middle level of conceptualisation (e.g., Rosch et al. (1976)).

Grady noticed that there are gaps in this mapping, i.e., not all of our experientially acquired knowledge about buildings is mapped onto theories e.g., we don t conventionally talk about a theory having no *windows*. Talking about *theories* in terms of *buildings* (e.g., *laying the foundations for a new theory*) is a complex mapping that is constrained by two primary metaphors: PERSISTING IS REMAINING ERECT and ORGANISATION IS PHYSICAL STRUCTURE. Only the inferential patterns of primary metaphors are mapped onto the complex metaphor.

A similar reduction of discourse metaphors onto primary metaphors would surely be possible. However, while discourse studies do not provide any evidence against the possibility of the existence of primary metaphors, they certainly do not suggest that discourse metaphors are motivated by such simpler mappings. In fact, there are reasons for claiming that in discursive reasoning, arguing and framing, metaphors like BELONGING IS HAVING ROOTS, CLONES ARE COPIES, NATION-STATES ARE HOUSES etc. *are* the basic imaginative acts. One reason for this is that discourse metaphors are, as illustrated above, very frequent and cross-culturally wide-spread, while the link between hypothesised abstract metaphor schemas like PERSISTING IS REMAINING ERECT and observable linguistic behaviour is much weaker. Notions of *belonging*, *cloning* and *nation-states* are in the very focus of discourse, while a general notion like *persisting* never is. Framing *belonging* as *rootedness*, *cloning* as *copying*, or *nation-states* as *houses* is contested in discourse, framing *persisting* as *remaining erect* never is.

But the point is not just to say that more specific phrasings of a mapping are more likely to appear on the linguistic surface of text and talk than very abstract generalisations. The important point is that it is possible, by means of looking at the linguistic *surface*, to identify a level of conceptual projection from a source domain that seems to be most likely to become entrenched in a discourse and that is most stable cross-linguistically, namely the level of discourse metaphors, based on source concepts from the basic level of categorisation. Moreover, the source domains of discourse metaphors have a high degree of phenomenological salience, while the source domains of primary metaphors don t. Of course, this is just what exponents of conceptual metaphor theory would say, and we will discuss the implications for a particular understanding of the embodiment of cognition below.

3.2. Evolution in historical time

As illustrated in 2.2., discourse metaphors evolve over historical time in social interaction. Some have a short life span, like FRANKENFOOD, some stay on to become entrenched cultural models, like NATURE IS A BOOK or DISEASES ARE INVADERS. What they share is that they live in the semiosphere (Lotman 1990). Individuals encounter them in discourse, take them up, modify or reject them. They become part of situated discursive and narrative practices.

Primary metaphors, by contrast, are hypothesised to be acquired as the result of non-semiotic experience. This view of metaphors as fundamental conceptual structures does not account for the flexible evolution of metaphors in use. It should be pointed out that there seem to be some differences between older versions of Conceptual Metaphor Theory (Lakoff and Johnson 1980; Lakoff 1987, 1993), and newer elaborations (Grady 1997; Lakoff and Johnson 1999; Grady 1999; Grady and Johnson 2003). In older versions, social organisation and culture are mentioned as one relevant aspect of experience:

> In other words, what we call direct physical experience is never merely a matter of having a body of a certain sort: rather every experience takes place within a vast background of cultural presuppositions. (Lakoff and Johnson 1980: 57)

In more recent elaborations, cognitive development and the acquisition of primary metaphors are more explicitly modelled as an individual endeavour. Discourse data suggest that an account of individual metaphorical reasoning needs to take into consideration the interactional negotiation of perspectives and the entrenchment of projected perspectives in terms of concept elaboration (Evans 2004).

3.3. Cultural component

Conceptual Metaphor Theory is predominantly interested in universal aspects of metaphor. Primary metaphors are more or less explicitly claimed to be universal (Lakoff and Johnson 1999; Grady and Johnson 2003; Özçalişkan 2003). Such a claim is not made with respect to complex metaphors, but the culture-specific component should be irrelevant, if, as claimed in CMT, the metaphorical potential of complex metaphors is re-

stricted to the inferential patterns of the primary metaphors constraining them.

We would argue that relatively rich images resulting from our cultural experience and interaction(s) with the world lie at the heart of metaphorical reasoning in discourse. A classic example of the sociocultural situatedness of metaphorical reasoning is Chilton and Ilyin s (1993) discussion of the metaphor EUROPE IS A HOUSE in Russian and Western European discourse. Chilton and Ilyin show that the differences in the stereotypes of a house in Russia and in some Western European countries led to vastly different inferences in envisaging European politics. The metaphor model FLORA also shows that sociocultural values and traditions are not irrelevant to metaphorical reasoning in the real world: the fact that FLORA-metaphors V as opposed to ORGANISM-metaphors usually throw a positive light on the target domain in Russian and German discourse is explained best by the romantic tradition in European culture, which entrenched an idyllic, and generally speaking a positive picture of nature.

CMT is vague with respect to a point that is important in this context. There does not seem to be a clear stance on whether in reasoning metaphorically, we carry out online-extensions within the source domain or not. In other words, in talking of a *well-founded theory*, does the hypothesised primary metaphor ORGANISATION IS PHYSICAL STRUCTURE become activated every time? Or is the primary metaphor regarded as the diachronic starting-point of *building*-metaphors, without being necessarily accessed when we reason about theories in terms of this metaphor (cf. Gibbs 1999)?

The first position would involve a strong grounding of reasoning in universal aspects of conceptualisation (because primary metaphors are modelled as universal). The second position would mean that the actual discourse metaphors entrenched in a community are the tools of our reasoning that we reason in terms of the culture-specific information-chunks entrenched in symbols rather than breaking down these chunks into their possibly universal pieces.

In summary, the major difference between primary metaphors and discourse metaphors lies in the type of source domain regarded as basic for metaphorical activity in the two approaches. This issue will be discussed in the context of notions of embodiment in the next section.

4. (How) are discourse metaphors embodied?

Embodiment is understood in a variety of ways within the cognitive sciences (Ziemke 2003). In the approach most influential in metaphor theory, three main aspects of the embodiment of cognition are distinguished: neural embodiment, embodiment on the phenomenological level, and embodiment in the cognitive unconscious (Lakoff and Johnson 1999: 102ff.).

As has become evident in the above discussions, conceptual metaphor theory prefers to treat metaphor as evidence for the grounding of cognition in the cognitive unconscious. The entities regarded as basic in understanding metaphor as a cognitive phenomenon are hypothesised entities located in the cognitive unconscious: image schemas and primary metaphors.[8]

We have tried to illustrate that discourse studies provide evidence for the sociocultural situatedness of metaphorical reasoning. The basic entities are source domains which are associated with rich images of (real or fictitious) objects salient in the cultural *Umwelt*. Whereas the source domains of primary metaphors are very abstract (as in PERSISTING IS BEING ERECT, ORGANISATION IS PHYSICAL STRUCTURE), the source domains of discourse metaphors are part of the interactional and cultural space: material objects that can be touched and pointed at (e.g., A NATION-STATE IS A HOUSE, THE STATE IS A MACHINE) or concepts that have a strong cultural image or value attached to them, due to textual, semiotic traditions (as in SOCIETY IS AN ORGAN, REVOLUTIONARY EVENTS ARE A STORM, BELONGING IS HAVING ROOTS, GRATEFULNESS IS BEING IN DEBT). Discourse metaphors provide evidence for the cognitive usefulness of the culturally accumulated knowledge entrenched in (source domain) symbols.

Lakoff and Johnson (1999) point out that all three levels of embodiment (the neural, the phenomenological and the cognitive unconscious) must be kept in view if we want to account for the embodiment of language and cognition. Surely many aspects of language and cognition are unconscious. However, it seems to us that more attention to the phenomenological level of embodiment and to sociocultural situatedness could make some hypothetical assumptions about entities in this unconscious realm superfluous (Zlatev 2002, BLM volume 1 2007)

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8 Cf. also the discussion of the cognitive unconscious in Zlatev (*BLM volume 1*).

5. Metaphor, embodiment and dual grounding

The main point of this article in the context of this volume has been to argue that an explanation of the functioning and dynamics of metaphor needs to address not only the embodiment of cognition, but also the empowerment of cognition through symbols (Tomasello 1999; Gentner 2003). The supplementation of the individualist view on cognition in Conceptual Metaphor Theory with a socioculturally situated view is the objective of several of the articles in this volume. The ultimate goal is an account of the dual grounding (Sinha 1999) of human cognition in both biology and culture to account for the fact that human cognition, like all animal cognition, is constrained by biology, but that it is, unlike other animal cognition, not bound by the skin (Bateson 1972). We have tried to make a step into this direction by arguing that:

1. in discourse metaphors, knowledge associated with basic level categories is projected onto the target domain;
2. the conventionalisation of a particular projection into a discourse practice is a socio-cultural process;
3. discourse metaphors therefore provide evidence for the social situatedness as well as the phenomenological embodiment of metaphor.

If metaphorical thought fundamentally involves the images and feelings embedded in our culture, then this highlights another aspect of embodiment, one which seems fundamental to human cognition: embodiment as a process, the process of *incorporating* the symbolically accumulated ideas and values of our fellow men and ancestors (Bourdieu 1977; Tomasello 1999). A focus on embodiment might therefore usefully be supplemented by a focus on *enculturation*. The term enculturation is normally used to describe the adoption of the behaviour patterns of the surrounding culture or the socialisation of children to the norms of their culture, but this term could also be used to describe the adoption of certain metaphorical patterns for thinking about the world, acting in the world, for imagining the past and future and for framing current crises. As Clifford Geertz wrote in his 1973 collection of essays and ethnography, *The Interpretation of Culture*:

> [C]ulture is best seen [...] as a set of control mechanisms plans, recipes, rules, instructions [...] for the governing of behavior. [And] man is precisely the animal most desperately dependent upon such extragenetic, outside-the-skin control mechanisms, such as cultural programs, for ordering

> behavior (p. 44). [While these ideas are not new], the results of recent research have made them susceptible of more precise statement as well as lending them a degree of empirical support they did not previously have. [...] The control mechanism view of culture begins with the assumption that human thought is basically both social and public that its natural habitat is the house yard, the marketplace, and the town square. Thinking consists not of happenings in the head but in a traffic in what has been called by G. H. Mead and others, significant symbols words for the most part but also gestures, drawings, musical sounds, mechanical devices like clocks, or natural objects like jewels anything in fact that is disengaged from its mere actuality and used to impose meaning on experience [...]. (Geertz 1973: 45)

To this list we would add discourse metaphors.

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